

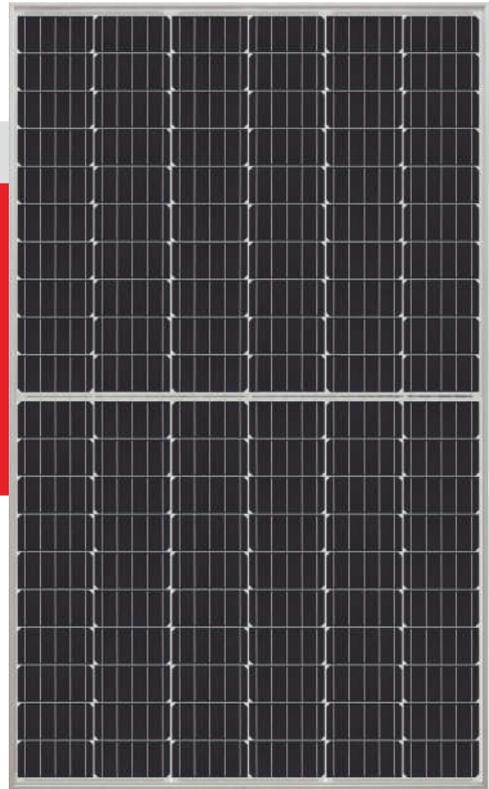
# VSUN

Innovative & Smart

## VSUN330-120M The Half Cell Module

VSUN330-120M  
VSUN320-120M

VSUN325-120M  
VSUN315-120M



19.84%

Module efficiency

12years

Material & Workmanship warranty

330W

Highest power output

25years

Linear power output warranty



PERC Cell Technology



Higher output power



Lower risk of micro-crack



Positive tolerance offer



Lower risk of hot spot



Better shading tolerance



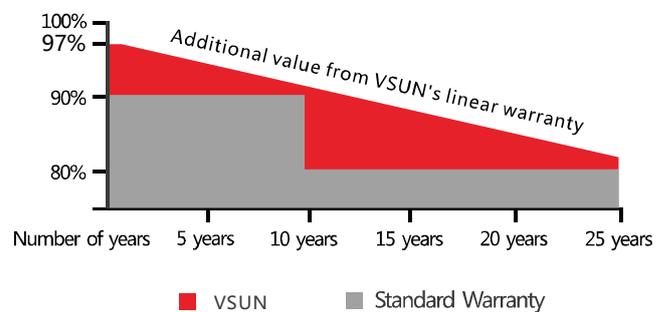
Certified for salt/ammonia corrosion resistance



Load certificates: wind to 2400Pa and snow to 5400Pa



Lower LCOE



**Munich RE**  <sup>®</sup>  
• 12-year product warranty  
• 25-year linear power output warranty

Invested by Fuji Solar, VSUN is a Japanese solar module solutions provider located in Tokyo that offers Japanese quality solar technologies globally. The group's business covers Japan, North America, Southeast Asia and EMEA since 2006. Solar module manufacturing base is located in Vietnam, Bac Giang province, and it is one of the fastest-growing, most heavily invested and most promising solar high-tech enterprises in the country.

Innovative & Smart – VSUN has been committed to providing greener, cleaner, and more intelligent renewable energy solutions. It is focusing on the new energy market and the development of customized and high-efficiency products.

VSUN offers PV project development and investments and provides full package of service for EPC solutions.

Note:

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## Electrical Characteristics at Standard Test Conditions(STC)

| Module Type                      | VSUN330-120M | VSUN325-120M | VSUN320-120M | VSUN315-120M |
|----------------------------------|--------------|--------------|--------------|--------------|
| Maximum Power - Pmax (W)         | 330          | 325          | 320          | 315          |
| Open Circuit Voltage - Voc (V)   | 40.6         | 40.4         | 40.2         | 39.9         |
| Short Circuit Current - Isc (A)  | 10.35        | 10.28        | 10.17        | 10.08        |
| Maximum Power Voltage - Vmpp (V) | 33.7         | 33.5         | 33.3         | 33.1         |
| Maximum Power Current - Imp (A)  | 9.8          | 9.71         | 9.61         | 9.52         |
| Module Efficiency                | 19.84%       | 19.54%       | 19.24%       | 18.94%       |

Standard Test Conditions (STC): irradiance 1,000 W/m<sup>2</sup>; AM 1.5; module temperature 25°C. Tolerance of Pmp: 0~+3%.  
Measuring uncertainty of power: ±3%.

## Electrical Characteristics at Normal Operating Cell Temperature(NOCT)

| Module Type                      | VSUN330-120M | VSUN325-120M | VSUN320-120M | VSUN315-120M |
|----------------------------------|--------------|--------------|--------------|--------------|
| Maximum Power - Pmax (W)         | 243.7        | 240.2        | 236.3        | 234.7        |
| Open Circuit Voltage - Voc (V)   | 37.5         | 37.4         | 37.2         | 36.9         |
| Short Circuit Current - Isc (A)  | 8.36         | 8.3          | 8.22         | 8.15         |
| Maximum Power Voltage - Vmpp (V) | 31           | 30.8         | 30.6         | 30.6         |
| Maximum Power Current - Imp (A)  | 7.86         | 7.8          | 7.72         | 7.67         |

Normal Operating Cell Temperature( NOCT) : irradiance 800W/m<sup>2</sup>; wind speed 1 m/s ; cell temperature 45°C; ambient temperature 20°C.  
Measuring uncertainty of power: ±3%.

## Temperature Characteristics

|                                 |                |                            |      |
|---------------------------------|----------------|----------------------------|------|
| NOCT                            | 45°C ( ± 2°C ) | Maximum System Voltage [V] | 1000 |
| Voltage Temperature Coefficient | -0.29%/K       | Series Fuse Rating [A]     | 20   |
| Current Temperature Coefficient | +0.05%/K       |                            |      |
| Power Temperature Coefficient   | -0.39%/K       |                            |      |

## Maximum Ratings

## Material Characteristics

|                    |   |
|--------------------|---|
| Dimensions         | 1680×990×35mm (L×W×H)   |
| Weight             | 18.7kg  |
| Frame              | Anodized aluminum profile   |
| Front Glass        | White toughened safety glass, 3.2 mm  |
| Cell Encapsulation | EVA (Ethylene-Vinyl-Acetate)  |
| Back Sheet         | Composite film  |
| Cells              | 12×10 pieces monocrystalline solar cells series strings (156.75mm×78.375mm) |
| Junction Box       | Rated current≥13A, IP≥67, TUV&UL  |
| Cable&Connector    | Length 400 mm, 1×4 mm <sup>2</sup> , compatible with MC4                    |

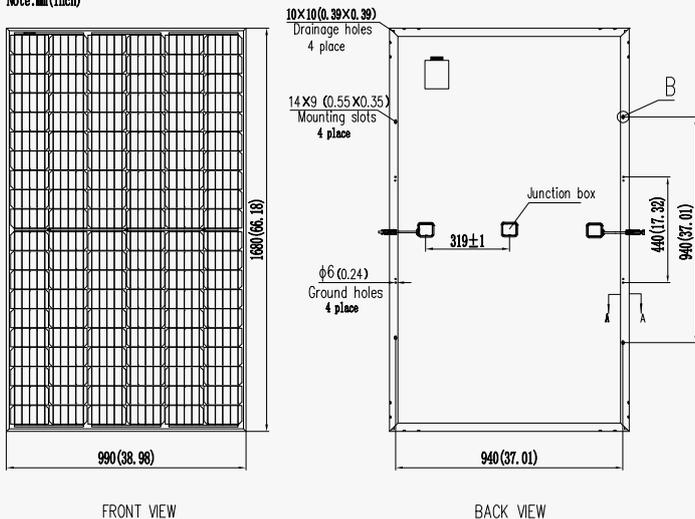
## Packaging

|                   |                  |                      |   |
|-------------------|------------------|----------------------|---|
| Dimensions(L×W×H) | 1720×1110×1120mm | Temperature Range    | -40 °C to + 85 °C                                       |
| Container20'      | 360              | Withstanding Hail    | Maximum diameter of 25 mm with impact speed of 23 m-s-1 |
| Container40'      | 780              | Maximum Surface Load | 5,400 Pa  |
| Container40'HC    | 845              | Application class    | class A   |

## System Design

## Dimensions

Note: mm (inch)



## IV-Curves

